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[57] ABSTRACT

Apparatus for obtaining the speed and acceleration of a motor vehicle in which the speed and acceleration are used in combination with exhaust emissions data obtained from the motor vehicle to analyze information about the pollutants being dispersed into the air by the motor vehicle. The apparatus includes a first radiation source producing a visible laser beam received by a first detector and a second radiation source producing a visible laser beam received by a second detector. The first and second radiation sources are arranged along the roadway with a known spacing and at a height so that the visible laser beams are interrupted by the front and rear wheels of the motor vehicle as it passes along the roadway. The detectors provide output pulses indicating whether the visible laser beams are interrupted and the time of the occurrence of each of the pulses is measured and recorded. An analyzer then calculates the speed and acceleration from the known spacing distance and the stored time measurements.

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